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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,844	01/23/2004	Jukka Moisander	901073.00006	8220

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EXAMINER

LUPINO, GINA M

ART UNIT	PAPER NUMBER
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3652

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/763,844	Applicant(s) MOISANDER ET AL.	
	Examiner Gina M. Lupino	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

I. Specification

Content of Specification

1. The listing of references in the specification is not a proper information disclosure statement.
37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper."
2. The following U.S. patents are discussed in "Background of the Invention" but not listed in the Information Disclosure Statement:
 - 2.1. 5,366,337
 - 2.2. 6,299,181
3. 3,450,222
4. Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

II. Claim Objections

1. Claim 1 is objected to because it recites the following limitations:
 - 1.1. "the lateral direction" in line 8. However, there is no preceding reference to a "lateral direction" in claim 1.
 - 1.2. "the vertical axis" in line 11. However, there is no preceding reference to a "vertical axis" in claim 1.
 - 1.3. "the angular position" in line 14. However, there is no preceding reference to a "angular position" in claim 1.
- 1.4. Therefore, there is insufficient antecedent basis for these limitations in the claim.

2. Claim 2 is objected to because it recites the limitation, "the transport of trunks" in line 23.
However, there is no preceding reference to a "transport of trunks" in claims 2 or 1.
Therefore, there is insufficient antecedent basis for the limitation in this claim.
3. Claim 3 is objected to because it recites the following limitations:
 - 3.1. "said correlation" in line 27. However, there is no preceding reference to a "correlation" in claims 3 or 1.
 - 3.2. "said angular position" in line 30. However, there is no preceding reference to an "angular position" in claims 3 or 1.
 - 3.3. Therefore, there is insufficient antecedent basis for these limitations in the claims.
4. Claim 4 is objected to because it recites the following limitations:
 - 4.1. "said correlation" in line 32. However, there is no preceding reference to a "correlation" in claims 4, 2, or 1.
 - 4.2. "said angular position" in line 35. However, there is no preceding reference to an "angular position" in claims 4, 2, or 1.
 - 4.3. Therefore, there is insufficient antecedent basis for these limitations in the claims.
5. Claim 5 is objected to because it recites the limitation, "said correlation" in line 27. However, there is no preceding reference to a "correlation" in claims 5 or 1. Therefore, there is insufficient antecedent basis for the limitation in this claim.
6. Claim 6 is objected to because it recites the limitations:
 - 6.1. "said correlation". However, there is no preceding reference to a "correlation" in claims 6, 2, or 1.
 - 6.2. "said angular position". However, there is no preceding reference to a "correlation" in claims 6, 2, or 1.
 - 6.3. Therefore, there is insufficient antecedent basis for these limitations in the claim.

7. Claim 7 is objected to because it recites the limitations:

7.1. "said correlation". However, there is no preceding reference to a "correlation" in claims 7 or 1.

7.2. "said angular position". However, there is no preceding reference to a "correlation" in claims 7 or 1.

7.3. Therefore, there is insufficient antecedent basis for these limitations in the claim.

8. Claim 8 is objected to because it recites the limitation, "said correlation". However, there is no preceding reference to a "correlation" in claims 8, 2, or 1. Therefore, there is insufficient antecedent basis for the limitation in this claim.

9. Claim 9 is objected to because it recites the limitations:

9.1. "the control". However, there is no preceding reference to a "control" in claims 9 or 1.

9.2. "the control system". However, there is no preceding reference to a "control system" in claims 9 or 1.

9.3. "said correlation". However, there is no preceding reference to a "correlation" in claims 9 or 1.

9.4. "the tool". However, there is no preceding reference to a "tool" in claims 9 or 1.

9.5. Therefore, there is insufficient antecedent basis for these limitations in the claim.

10. Claim 10 is objected to because it recites the limitation, "said frame joint". However, there is no preceding reference to a "frame joint" in claims 10, 9, or 1. Also, it is unclear whether this refers to "a joint between said frames", as recited in claim 1, or another "frame joint". Therefore, there is insufficient antecedent basis for the limitation in this claim. Further clarification is necessary.

11. Claim 11 is objected to because it recites the limitations:

11.1. "said frame joint". However, there is no preceding reference to a "frame joint" in claims 11 or 1. Also, it is unclear whether this refers to "a joint between said frames", as recited in claim 1, or another "frame joint". Therefore, there is insufficient antecedent basis for the limitation in this claim. Further clarification is necessary.

12. Claim 12 is objected to because it recites the limitations:

12.1. "the rotary position". However, there is no preceding reference to a "rotary position" in claims 12 or 1.

12.2. "said correlation". However, there is no preceding reference to a "correlation" in claims 12 or 1.

12.3. Therefore, there is insufficient antecedent basis for these limitations in the claim.

13. Claim 13 is objected to because it recites the limitation "said angular position". However, there is no preceding reference to an "angular position" in claims 13 or 1. Therefore, there is insufficient antecedent basis for these limitations in the claim.

14. Claim 14 is objected to because it recites the limitation "said rotary position". However, there is no preceding reference to an "rotary position" in claims 14 or 1. Therefore, there is insufficient antecedent basis for these limitations in the claim.

15. Claim 15 is objected to because it recites the limitation "the lifting". However, there is no preceding reference to a "lifting" in claims 15 or 1. Therefore, there is insufficient antecedent basis for these limitations in the claim.

16. Claim 16 is objected to because it recites the following limitations:

16.1. "the lateral direction". However, there is no preceding reference to a "lateral direction" in claim 16.

16.2. "the angular position" and "said angular position". However, there is no preceding reference to an "angular position" in claim 16.

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16.3. "the vertical axis". However, there is no preceding reference to a "vertical axis" in claim 16.

16.4. "its rotary position" and "said rotary position". However, there is no preceding reference to a "rotary position" in claim 16.

16.5. "the position of said swiveling device". However, there is no preceding reference to a "position of said swiveling device" in claim 16.

16.6. "the driving". However, there is no preceding reference to a "driving" in claim 16.

16.7. "its rotary position". However, there is no preceding reference to a "rotary position" in claim 16.

16.8. "its change". However, there is no preceding reference to a "change" in claim 16.

16.9. Therefore, there is insufficient antecedent basis for these limitations in the claim.

17. Claim 17 is objected to because it recites the following limitations:

17.1. "the transport of trunks". However, there is no preceding reference to a "transport of trunks" in claims 17 or 16.

17.2. "the bottom". However, there is no preceding reference to a "bottom" in claims 17 or 16.

17.3. "the load space". However, there is no preceding reference to a "load space" in claims 17 or 16.

17.4. "the trunks". However, there is no preceding reference to "trunks" in claims 17 or 16.

17.5. Therefore, there is insufficient antecedent basis for these limitations in the claim.

18. Claim 18 is objected to because it recites the limitation, "the angular position". However, there is no preceding reference to an "angular position" in claims 18 or 16. Therefore, there is insufficient antecedent basis for these limitations in the claim.

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19. Claim 19 is objected to because it recites the limitation, "the angular position". However, there is no preceding reference to an "angular position" in claims 19, 17, or 16. Therefore, there is insufficient antecedent basis for these limitations in the claim.

20. Claim 20 is objected to because it recites the following limitations:

20.1. "the position of said joint". However, there is no preceding reference to a "position of said joint" in claims 20 or 16.

20.2. "the control of the frame joint". However, there is no preceding reference to a "control of the frame joint" in claims 20 or 16.

20.3. Therefore, there is insufficient antecedent basis for these limitations in the claim.

21. Claim 21 is objected to because it recites the following limitations:

21.1. "the tool". However, there is no preceding reference to a "tool" in claims 21 or 16.

21.2. "said angular position". However, there is no preceding reference to an "angular position" in claims 21 or 16.

21.3. Therefore, there is insufficient antecedent basis for these limitations in the claim.

22. Claim 22 is objected to because it recites the limitation, "said angular position". However, there is no preceding reference to an "angular position" in claims 22 or 16. Therefore, there is insufficient antecedent basis for these limitations in the claim.

23. Claim 23 is objected to because it recites the limitation, "said rotary position". However, there is no preceding reference to a "rotary position" in claims 23 or 16. Therefore, there is insufficient antecedent basis for these limitations in the claim.

III. Claim Rejections - 35 USC § 112

The following is a quotation from the relevant paragraphs of 35 U.S.C. 112:

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(2) The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 2-8, 10, 11, 13-15, 20, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1.1. With respect to claims 2-8, 10, and 13-15, claims 2-8, 10, and 13-15 are ambiguous and indefinite because they recite both an apparatus and the method steps of using the apparatus. See MPEP 2173.05(p).

1.2. With respect to claims 11, 20, and 21 claims 11, 20, and 21 all recite the limitation "a correlation ", which is a relative term that renders claims 11 and 20 indefinite. The term "a correlation" is not defined by the respective claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore, further clarification is necessary.

1.3. With respect to claim 23, claim 23 recites the limitation "the position in which the crane is at the time". However, "at the time" is a relative term that renders claim 23 indefinite. It is unclear as to which time this refers to. The term "at the time" is not defined by the respective claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore, further clarification is necessary.

IV. Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by BRUUM (U.S. Patent No. 4,114,666).

1.1. With respect to claim 1 BRUUM discloses a method for controlling the position of a knuckle boom crane during movements of a forest working machine, wherein the method comprises at least the following steps:

1.1(a) driving the forest working machine, which comprises

1.1(a)(i) a front frame 1, a rear frame 2, a joint 3 between said frames 1, 2, allowing the swiveling of said frames 1, 2 in the lateral direction during the driving, a knuckle boom crane 61 connected on the front frame to a swiveling device 7 which makes it possible to swivel said crane 61 around the vertical axis and thereby to change its rotary position;

1.1(b) changing the position of the forest working machine during the driving in such a way that the angular position between the front frame 1 and the rear frame 2 is changed;

1.1(c) and controlling said swiveling device automatically during the driving in such a way that when said angular position is changed, said rotary position is also changed, when said rotary position or its change is also dependent on said angular position or its change.

1.1(d) See Figures 1, 2, and column 2, lines 38-45, 56-60, 66-68, column 3, lines 1-3, column 4, lines 62-65, and column 5, lines 66-68.

- 1.2. With respect to claim 2, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, where the rear frame 2 comprises a load space 29 which is intended for the transport of trunks, and where the crane 61 or a tool 67 connected to it can be arranged to lie on the bottom of the load space 29 or on top of the trunks.
- 1.3. With respect to claims 3 and 4, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, where the correlation is kept such that that part of the crane 61 which lies on the rear frame 2, or the tool 67 connected to the crane 61 and lying on the rear frame 2, is substantially stationary when said angular position is changed.
- 1.4. With respect to claims 5 and 6, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, where the correlation is kept such that that part of the crane 61 is placed at a distance above the rear frame 2, or the tool 67 connected to the crane 61 and spaced at a distance above the rear frame 2, is substantially stationary when said angular position is changed.
- 1.5. With respect to claims 7 and 8, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, where the correlation is kept such that the position and orientation of the crane 61, when it is placed above the rear frame 2, remains substantially the same with respect to the position and orientation of the rear frame 2, when said angular position is changed.
- 1.6. With respect to claim 9, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, further comprising the steps of:

1.6(a) changing the position of the crane 61 by swiveling said swiveling device 7 which comprises first actuators 16 which can be controlled and which produce a force effect to swivel the crane 61, and

1.6(b) using, for the control, the control system 14 of the forest working machine, in which said correlation is set or stored, or in which is defined that point of the rear frame 2, with respect to which the crane 61 or the tool is to be substantially stationary.

1.6(c) See Figures 1, 2, 4-7.

1.7. With respect to claim 10, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, further comprising the steps of:

1.7(a) changing the position of the forest working machine by swiveling said frame joint 3, which comprises second actuators which can be controlled by means of said control system 14 and which produce a force effect to swivel the frames 1, 2. See Figures 1, 2, column 2, lines 38-45, and column 5, lines 40-46.

1.8. With respect to claim 11, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, further comprising the steps of:

1.8(a) changing the position of the crane 61 by swiveling said swiveling device 7 which comprises first actuators 16 which can be controlled and which produce a force effect to swivel the crane 61,

1.8(b) changing the position of the forest working machine by swiveling said frame joint 3 which comprises second actuators which can be controlled and which produce a force effect to swivel the frames 1, 2, and

1.8(c) using, for the control 14, a pressurized medium circuit, by means of which the second actuators can be coupled, when necessary, to the first actuators 16 in such a

way that the control of the frame joint 3 simultaneously effects control of the swiveling device 7, either by a constant or according to a correlation which can be set.

1.8(d) See Figures 1, 2, 4-7, column 2, lines 38-45, and column 5, lines 40-46.

1.9. With respect to claim 12, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, further comprising the steps of:

1.9(a) transferring the crane 61, either automatically or manually 16, to a position which is used as a reference position, either before starting to drive or during driving, and

1.9(b) changing the rotary position of the crane 61 automatically in relation to said reference position, according to said correlation.

1.9(c) See Figures 1, 2, 4-7, column 2, lines 38-45, column 4, lines 63-65, and column 5, lines 40-46.

1.10. With respect to claim 13, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, where for the control 14, a control system 14 is used, which comprises a sensor defining said angular position. See column 3, lines 3-5 and column 5, lines 40-46.

1.11. With respect to claim 14, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, where for the control 14, a control system 14 is used, which comprises a sensor defining said rotary position. See column 3, lines 3-5 and column 5, lines 40-46.

1.12. With respect to claim 15, BRUUM discloses a method for controlling the position of a knuckle boom crane 61, as discussed above, where such an actuator of the crane 61, which takes care of the lifting and lowering of the crane 61, is simultaneously coupled to free floating.

1.13. With respect to claim 16 BRUUM discloses a forest working machine which comprises:

- 1.13(a) a front frame 1, a rear frame 2, a joint 3 between said frames 1, 2, allowing the swiveling of said frames 1, 2 in the lateral direction during the driving in such a way that the angular position between the front frame and the rear frame is changed,
- 1.13(b) a knuckle boom crane 9 connected on the front frame 1 to a swiveling device 7 which makes it possible to turn said crane 9 around the vertical axis and thereby to change its rotary position;
- 1.13(c) first actuators 16 to change the position of said swiveling device 7;
- 1.13(d) and a control system 14 intended for controlling said actuators 16; the control system is also arranged to control said swiveling device automatically during the driving of the forest working machine in such a way that when said angular position is changed, said rotary position is also changed, when said rotary position or its change is also dependent on said angular position or its change. See column 5, lines 40-46.
- 1.13(e) See Figures 1, 2, 4-7.
- 1.14. With respect to claim 17, BRUUM discloses a forest working machine, as discussed above, where the rear frame 2 comprises a load space 29 which is capable for transporting trunks, and wherein the crane 61 or a tool 67 connected to it can be arranged to lie on the bottom of the load space or on top of the trunks.
- 1.15. With respect to claim 18, BRUUM discloses a forest working machine, as discussed above, where the control system 14 is arranged to keep the position and orientation of the crane 61, or a given point of the crane 61, or a tool 67 connected to the crane 61, substantially stationary in relation to the rear frame 2, when the angular position of the forest working machine is changed.
- 1.16. With respect to claim 19, BRUUM discloses a forest working machine, as discussed above, where the control system 14 is arranged to keep the position and orientation of the

crane 61, or a given point of the crane 61, or a tool 67 connected to the crane 61 substantially stationary in relation to the rear frame 2, when the angular position of the forest working machine is changed. See column 2, lines 56-68 and column 3, lines 3-5.

1.17. With respect to claim 20, BRUUM discloses a forest working machine, as discussed above, where it comprises second controllable actuators 4 for changing the position of said joint 3, and wherein the control system 14 comprises a pressurized medium circuit, by means of which the first actuators can be coupled, when necessary, to the second actuators in such a way that the control of the frame joint simultaneously effects control of the swiveling device, either according to a constant or a correlation which can be set. See Figures 1, 2, column 2, lines 38-45, and column 5, lines 40-46.

1.18. With respect to claim 21, BRUUM discloses a forest working machine, as discussed above, where in the control system 14, said correlation is set or stored, or that part of the rear frame 2, with respect to which the crane 61 or the tool 67 is to be substantially stationary, is defined, or that position and orientation of the crane 61 is selected, which is to be kept substantially the same with respect to the position and orientation of the rear frame 2, when said angular position is changed.

1.19. With respect to claim 22, BRUUM discloses a forest working machine, as discussed above, where the control system 14 comprises a sensor intended to define said angular position. See Figures 1, 2, and column 3, lines 3-5, column 4, lines 63-65, and column 5, lines 40-46.

1.20. With respect to claim 23, BRUUM discloses a forest working machine, as discussed above, where the crane 61 comprises a reference position, with respect to which said rotary position is arranged to be changed, wherein the selected reference position is either a given constant position or the position in which the crane 61 is set at the time.

V. Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina M. Lupino whose telephone number is (571) 272-6557. The examiner can normally be reached on 8:30am - 5:00pm EST.
3. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.
4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
5. GML



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